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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,250	09/09/2003	John R. Scattergood	Scattergood 1	7669

7590 09/16/2005

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EXAMINER

NGUYEN, DINH Q

ART UNIT PAPER NUMBER

3752

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/658,250

Applicant(s)

SCATTERGOOD, JOHN R.

Examiner

Dinh Q. Nguyen

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 3-5, 7, 10, 24-30, 34, 38, 41 and 55-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 8, 9, 11-23, 31-33, 35-37, 39, 40, 42-54 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/09/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The information disclosure statement filed 9/09/03 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Applicant is required to supply a copy for each non-patent literature publication of Huimin Liu, Yunzhong Liu, and Power Metallurgy Science. These references have been crossed out by the examiner on the attached IDS.
2. Claims 24-30, 55-61 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/01/05. However, claims 3-5, and 34 referring to multiple-axes rotation, thus do not read on figure 19 of single axis rotation (figures 21-24 disclose multiple-axes rotation as stated on page 36, line 5-10). Similarly, claims 7 and 38 recite a vibration source that does not read on figure 19 (figure 7A shown a vibration source as reference 108), and claims 10 and 41 recites a system that capable of entrained fluid within the melt material that does not read on figure 19. Therefore, claims 3-5, 7, 10, 34, 38, and 41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 22, 23, 31, 39, 53, 54, and 62 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The drawing and the specification do not disclose the apparatus and method for elevating acceleration prior to liquefying and non-continuous operation of the system.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22, 23, 31, 39, 53, 54, and 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The drawing and the specification do not disclose the apparatus and method for elevating acceleration prior to liquefying and non-continuous operation of the system.

7. For the purpose of this Office action, the claims will be examined as best understood by the examiner.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 6, 8, 9, 11-18, 20, 21, 32, 33, 35-37, 40, 42-49, 51, 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Roberts et al.

Roberts et al discloses an atomizer system comprising: a melt material 66, a containment portion 69 for securing melted material, a centrifuge unit 70/74 for accelerating the environment of the melted material, atomizing fluid 64 (also acting as cooling fluid) flow across an exposed surface melt material 62 (melted material deposit along the surface 62 as spun off from containment portion 69), the pulley spin shaft 71 on the rotating axis of shaft 71 and pulley 70 spin drum on the rotating axis of drum 62. In figure 1C, Roberts discloses the tip of electrode 16, which acting as the containment portion is the solid form of the melted material. In figure 4, Roberts discloses gas 81 acting as atomizing fluid, gas 81 could be any type of gases such as inert gas or oxidizing gas (see column 8, lines 4-14).

With respect to claims 32, 33, 35-37, 40, 42-49, 51, 52, the apparatus shown by Roberts et al is capable of performing the method or steps recited in the claims.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 19, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts et al in view of Slaughter.

Roberts et al teaches all the limitations of the claims except for a particulates atomizing fluid. However, Slaughter discloses an atomizer system with melt material 50 and particulates atomizing fluid A flows across an exposed surface 52. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Roberts et al with a particulates atomizing fluid as suggested by Slaughter. Doing so would provide a way to produce better material (see column 2, lines 20-40).

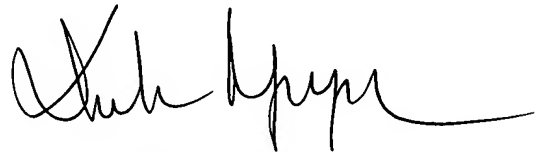
### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to show the art with respect to an atomizer system: Clough, Nayar et al, and Raman et al.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dinh Q. Nguyen', with a long horizontal flourish extending to the right.

Dinh Q. Nguyen  
Primary Examiner  
Art Unit 3752

dqn